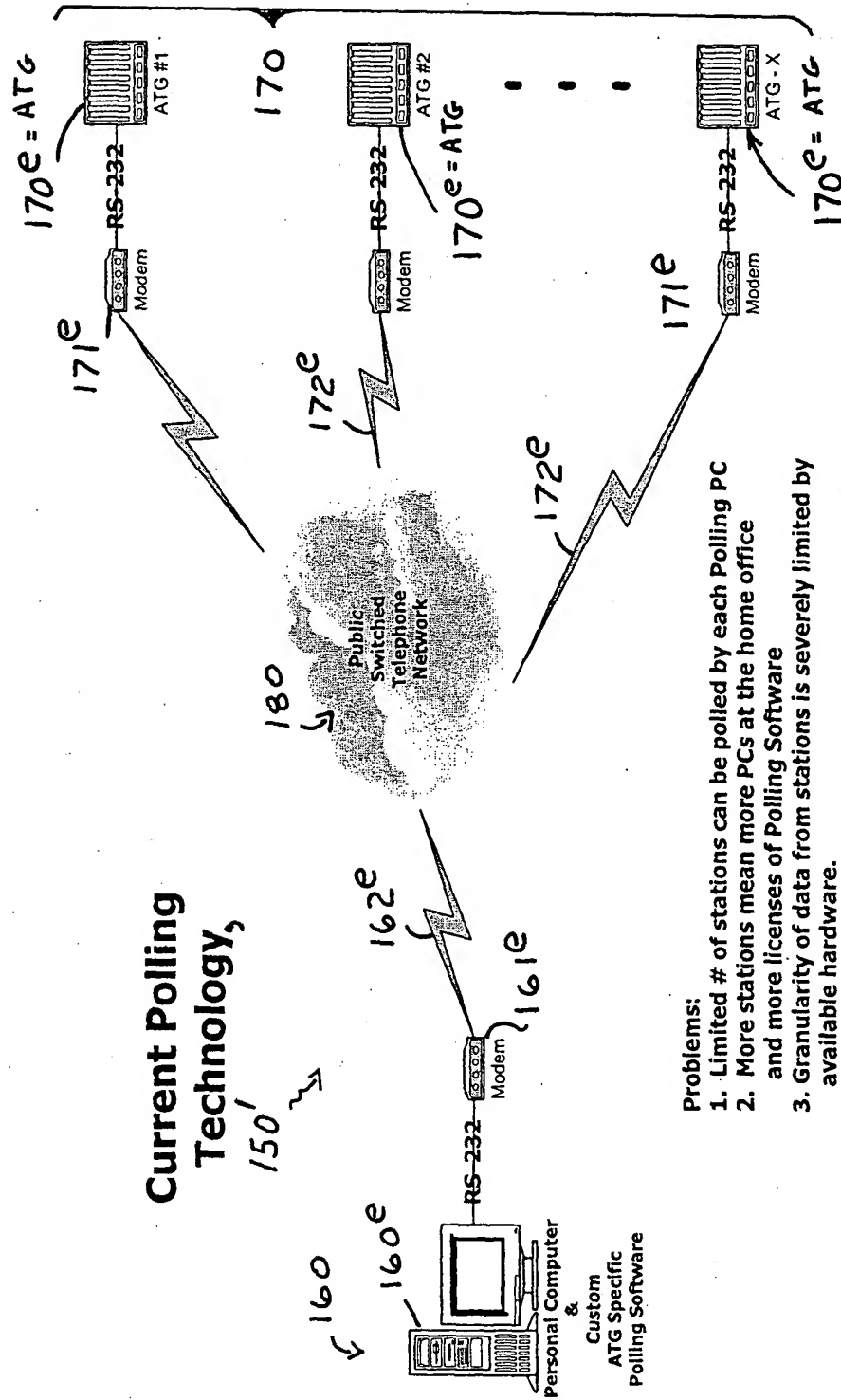


Current Polling Technology,

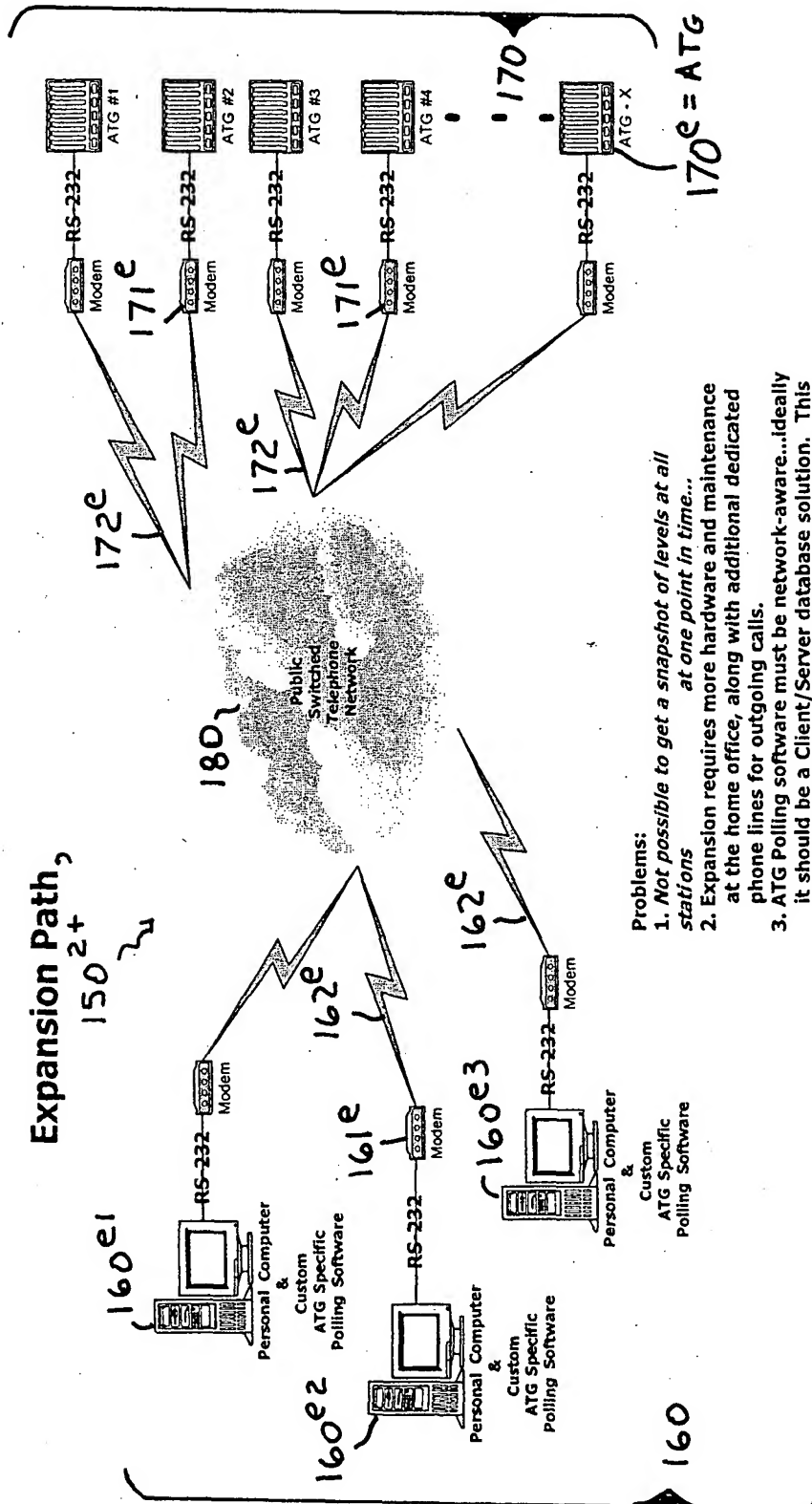


Problems:

1. Limited # of stations can be polled by each Polling PC
2. More stations mean more PCs at the home office and more licenses of Polling Software
3. Granularity of data from stations is severely limited by available hardware.
4. Not possible to get a snapshot of levels at all stations
5. Expansion requires more hardware and maintenance at the home office, along with additional dedicated phone lines for outgoing calls. (see Expansion)
6. No standard way to keep time synchronized at all stations so local data polls occur at the same time.

FIG. 1.

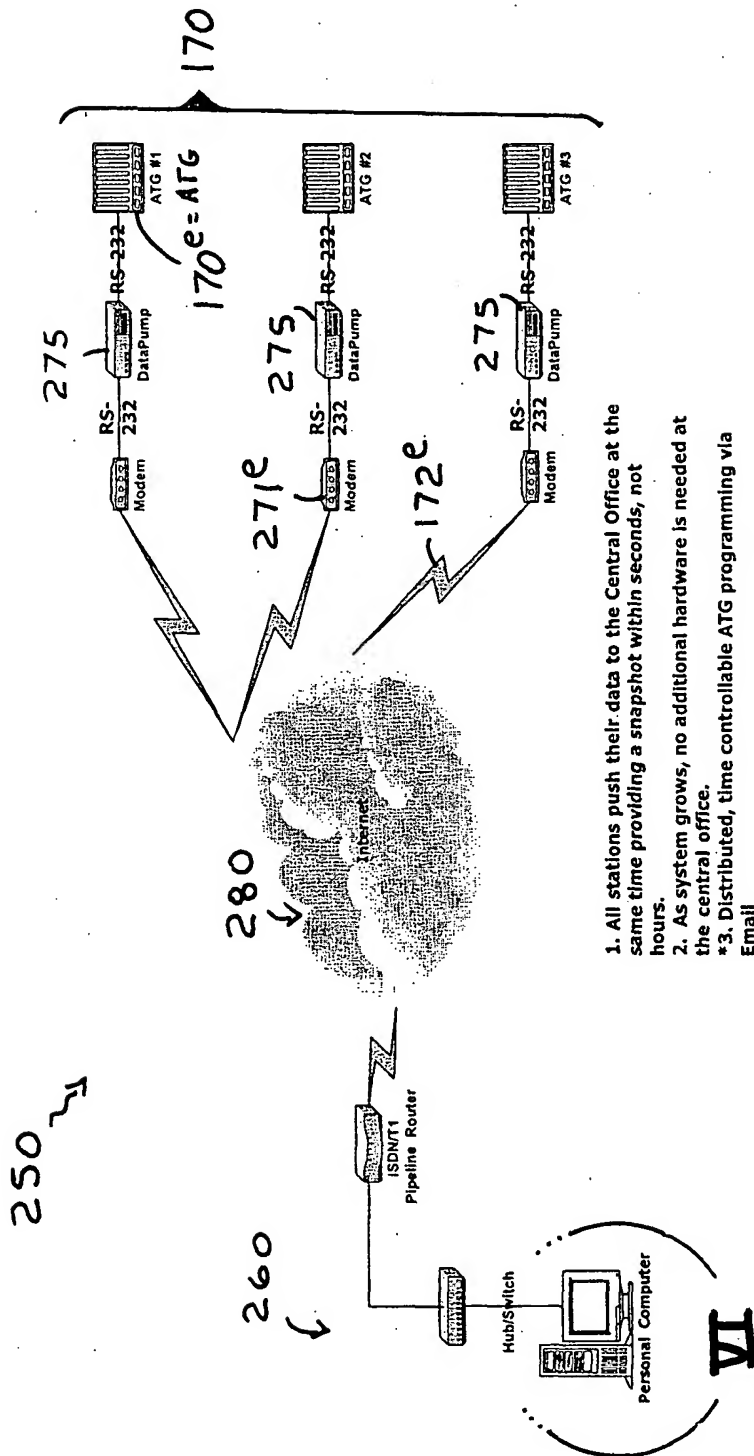
(PRIOR ART)



- Problems:
1. Not possible to get a snapshot of levels at all stations at one point in time...
 2. Expansion requires more hardware and maintenance at the home office, along with additional dedicated phone lines for outgoing calls.
 3. ATG Polling software must be network-aware... Ideally it should be a Client/Server database solution. This translates to a big jump in the price of the polling software, just for the database engine....

FIG. 2.
(PRIOR ART)

Push Technology - Small System



1. All stations push their data to the Central Office at the same time providing a snapshot within seconds, not hours.
2. As system grows, no additional hardware is needed at the central office.
- *3. Distributed, time controllable ATG programming via Email
- *4. Direct ATG programming via built-in Web Server
5. Time is kept synchronized via Internet Time Servers
6. Ethernet port provides instant WAN capabilities and eliminates the need for a modem & phone line.
7. 4 Serial ports provide expansion to poll other devices.

FIG. 3.

250

260

280

275

271e

172e

170e=ATG

170

Personal Computer

Hub/Switch

ISDN Pipeline Router

Internet

Modem

DataPump

ATG #1

ATG #2

ATG #3

ATG #4

ATG #X

1. All stations push their data to the Central Office at the same time providing a snapshot within seconds, not hours.
2. As system grows, no additional hardware is needed at the central office.

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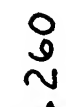


FIG. 5.

Typical Dispatch Office Set-up for Reporting & Polling Control

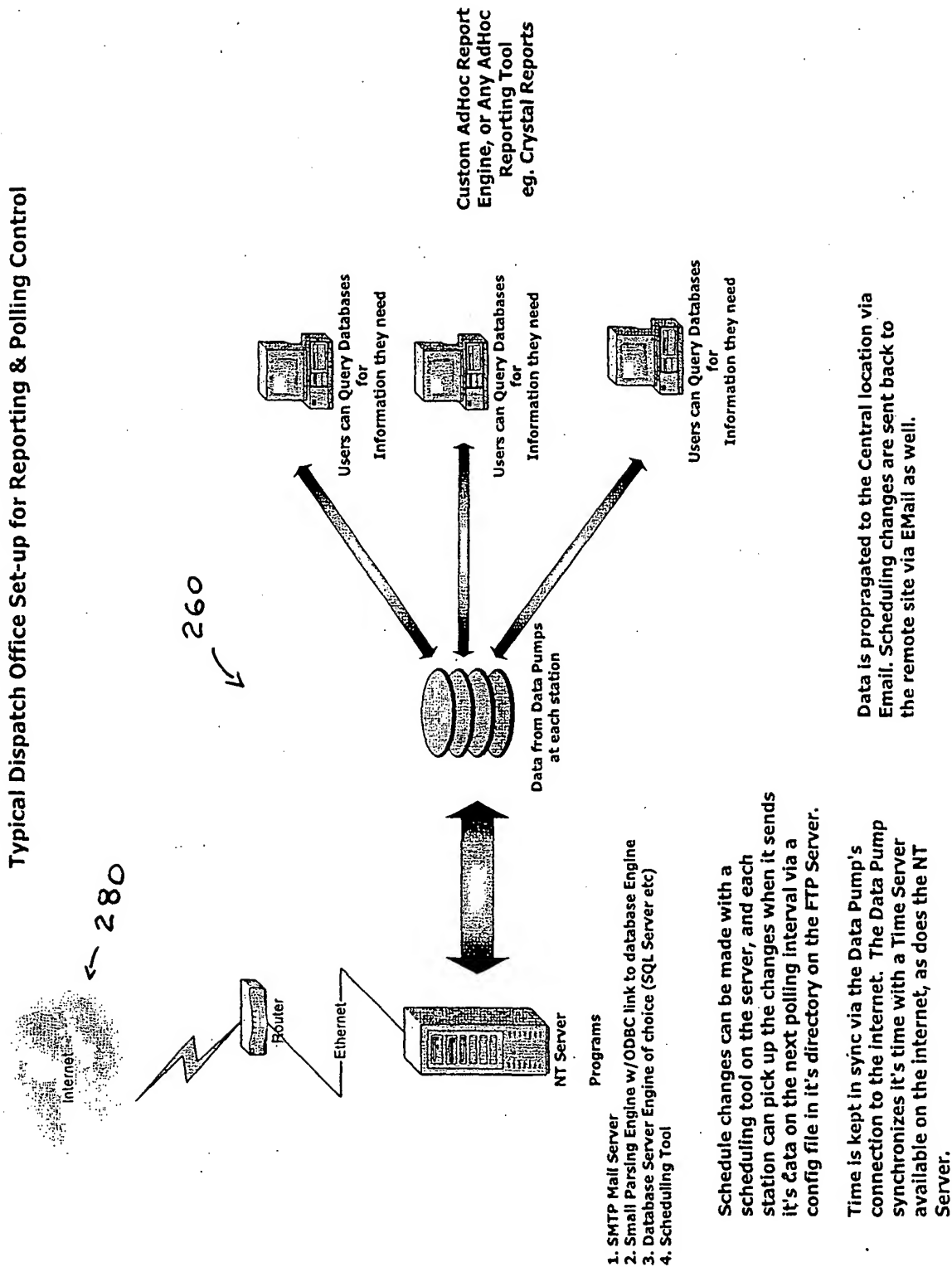


FIG. 6.

Typical System Hardware Scenario - Stations not on a WAN

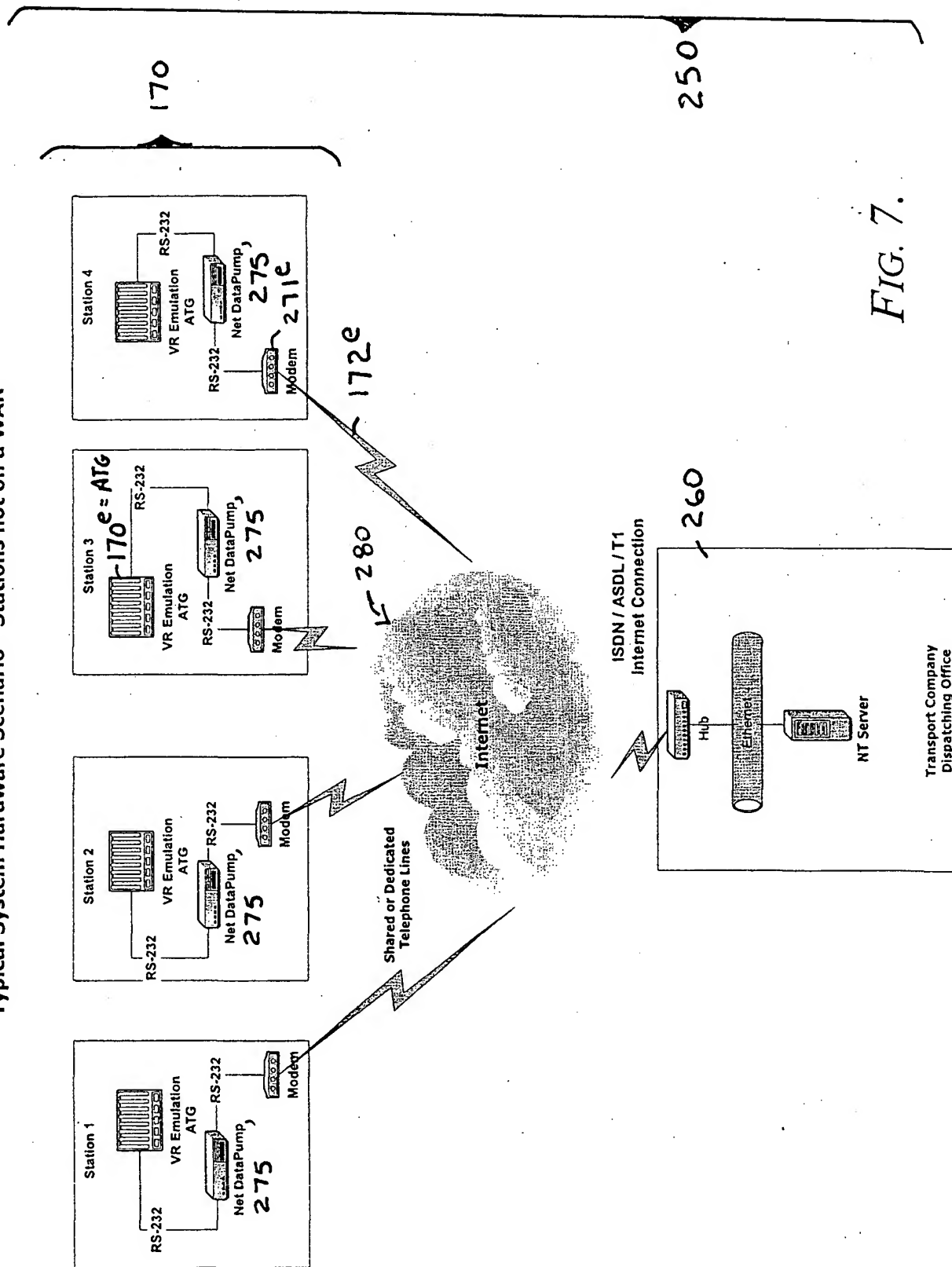


FIG. 7.

Typical System Hardware Scenario - Stations on a WAN

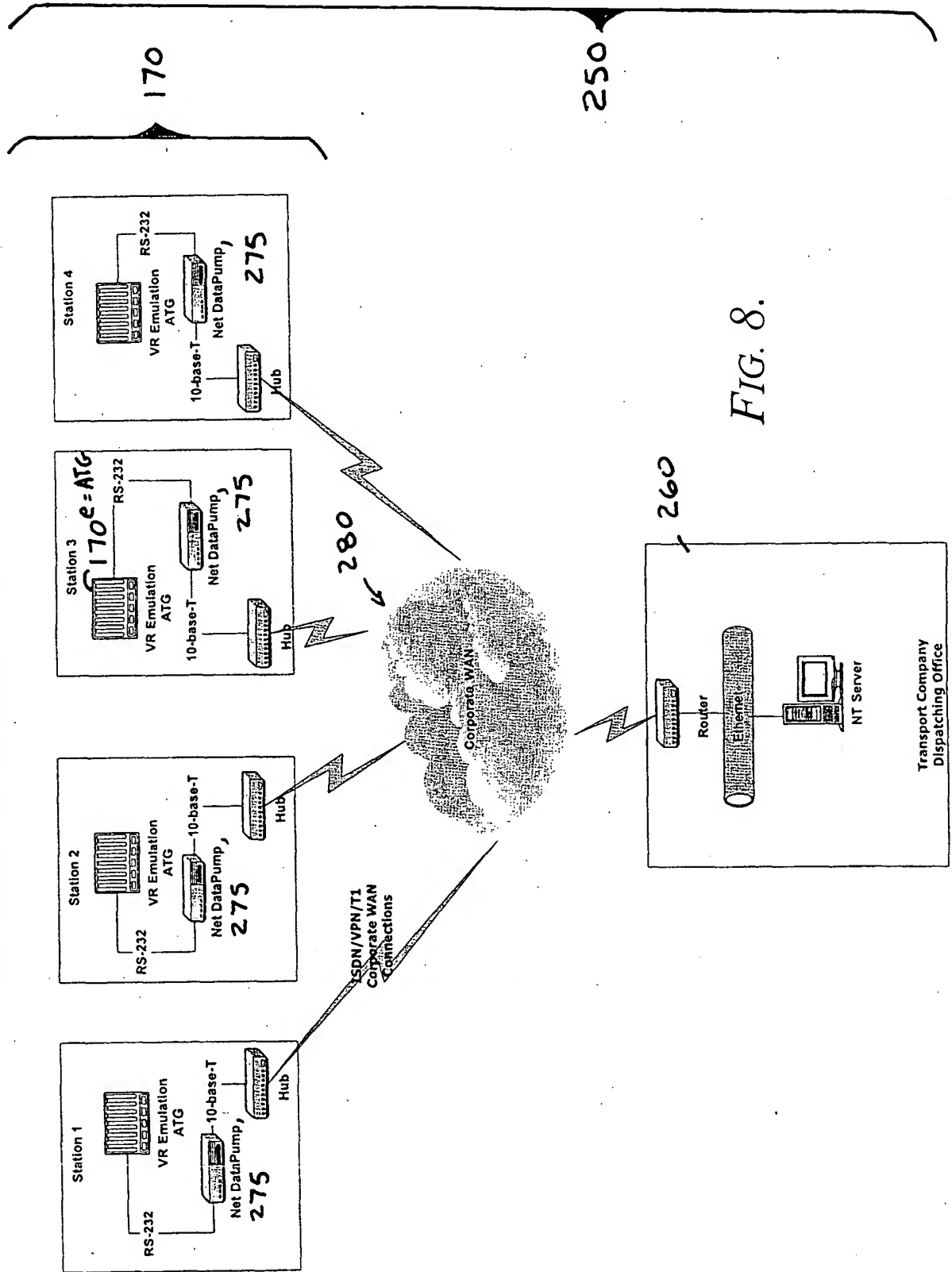


FIG. 8.